



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,357	07/29/2003	Kathleen Knobe	200302018-1	6273

7590 02/07/2006

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

HARPER, LEON JONATHAN

ART UNIT	PAPER NUMBER
----------	--------------

2166

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,357	Applicant(s) KNOBE ET AL.	
	Examiner Leon J. Harper	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/29/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/29/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the application 10629357 filed on 7/29/2003.

Claims 1-36 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2166

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0193662 (hereinafter Garthwaite) in view of US 6067604 (hereinafter Ram) (art of record).

As for claim 1 Garthwaite discloses: based on forward guarantees received from preceding nodes indicating earliest timestamps to be sent from the preceding nodes (See figure 19 and paragraph 0146), and backward guarantees received from successive nodes indicating earliest timestamps to be used at the successive nodes (See figure 16 and paragraph 0144), determining timestamp requirements for data to be processed in the node (See paragraph 149 for requirements and paragraph 150 discloses "node"); returning to preceding nodes a backward guarantee of earliest timestamps to be used at the node (See paragraph 0144).

Garthwaite does not explicitly disclose: at the preceding nodes, eliminating data and computations corresponding to timestamps earlier than the backward guarantee. Ram however does disclose: at the preceding nodes, eliminating data and computations corresponding to timestamps earlier than the backward guarantee (See column 5 lines 55-57 and column 6 lines 1-6). It would have been obvious to an artisan of ordinary skill in the pertinent art to have incorporated the teaching of Ram into the system of Garthwaite. The modification would have been obvious because eliminating data based

Art Unit: 2166

on the backward guarantees means that you do not have to waste bandwidth and computational power in order to achieve higher performance (See Ram column 2 lines 36-38).

As for claim 2 the rejection of claim 1 is incorporated, and further Garthwaite discloses: propagating a forward guarantee to successive nodes based on forward guarantees received from preceding nodes each time an item leaves the node (See paragraph 0147).

As for claim 3 the rejection of claim 2 is incorporated, and further Garthwaite discloses: wherein the propagated forward guarantee is the earliest of all the received forward guarantees (See paragraph 0147 aprox. Lines 7-10).

As for claim 4, the rejection of claim 2 is incorporated, and further Garthwaite discloses: wherein a forward guarantee for the node is forwarded to a downstream node with the item (See paragraph 0144).

As for claim 5 the rejection of claim 1 is incorporated and further Garthwaite discloses: periodically propagating a forward guarantee to successive nodes based on forward guarantees received from preceding nodes (See 0146 periodically = whenever a car is allocated).

As for claim 6 the rejection of claim 1 is incorporated and further Garthwaite discloses: propagating the backward guarantee to preceding nodes each time an item enters the node (See paragraph 0144).

As for claim 7 the rejection of claim 6 is incorporated and further Garthwaite discloses: wherein the backward guarantee is the timestamp selected from the latest timestamp received from preceding nodes and the earliest timestamp in received backward guarantees from successive nodes (See paragraph 0147).

As for claim 8 the rejection of claim 1 is incorporated and further Ram discloses: wherein the preceding node is a thread (See column 5 lines 50-57).

As for claim 9 the rejection of claim 8 is incorporated, and further Garthwaite discloses: eliminating computations for items having a timestamp earlier than the latest backward guarantee propagated to the preceding node (See paragraph 0146).

As for claim 10 the rejection of claim 1 is incorporated, and further Ram discloses: wherein the preceding node is a channel (See column 9 lines 35-40).

As for claim 11 the rejection of claim 10 is incorporated, and further Garthwaite discloses: eliminating items having a timestamp earlier than the latest backward guarantee propagated to the preceding node (See paragraph 0147).

As for claim 12 the rejection of claim 11 is incorporated and further Ram discloses: wherein the step of eliminating is performed each time an item enters the channel (See column 10 lines 23-29 and column 6 lines 8-14).

Claims 13-23,24 are apparatus claims corresponding to the method claims 1-3,5-12, 4 respectively and are thus rejected for the reasons set forth in the rejection of claims 1-3,5-12,4.

Claims 25-35,36 are apparatus claims corresponding to the method claims 1-3,5-12, 4 respectively and are thus rejected for the reasons set forth in the rejection of claims 1-3,5-12,4.

Conclusion

The technical paper GIT-CC-02-08 titled Dead timestamp identification in stampede. February 2002 is cited but is not relied upon in this action.

Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon J. Harper whose telephone number is 571-272-0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

Art Unit: 2166

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leon J Harper
LJH
January 31, 2006


MOHAMMAD ALI
PRIMARY EXAMINER